nedicoil

MICRO-PRECISION COIL AND FORMED WIRE PRODUCTS FOR THE MEDICAL DEVICE INDUSTRY



PRECISION METAL COMPONENTS FOR YOUR MEDICAL DEVICES

Medicoil is a specialized manufacturer of precision coiled and formed wire products. Components and subassemblies are produced to the Customer's exacting specifications.

- Collaborative application engineering assistance
- Best in class dimensional capabilities
- Solutions using implantable and surgical grade materials
- Expertise in process development for micro-precision coils and wire form components
- Knowledgeable qualification partner

TECHNOLOGY INVESTMENT ENHANCES CAPABILITIES AND SERVICES

Medicoil continues to invest in technology to support the delivery of best-in-class solutions. Integrating cutting-edge equipment offers customers state-of the art capabilities and value-added services under one roof. Most essential are the high speed CNC coiling, forming, and winding machines; partnered with Swiss Screw, laser welding and various other machines to deliver custom solutions to the medical industry.

PROTOTYPING/OUICK TURN CAPABILITY

Dedicated R & D team and fully-equipped tool room allows prototype development and testing under production conditions. Allows for collaboration that ensures confident and quick launch of new products.

CLEANING AND PACKAGING SOLUTIONS

Your sensitive precision medical components are delivered in contamination-free, specialized protective packaging according to your custom specifications. Medicoil's modern facilities include an ISO 7 (Class 10,000) Clean Room. Many methods such as aqueous and solvent ultrasonic cleaning are available.

CONFORMANCE TO CUSTOMER EXPECTATIONS

Medicoil uses state-of-the-art inspection and measurement equipment. Processes and procedures follow strict GMP and ISO 13485 guidelines. Qualification and validation processes follow internal and Customer-driven requirements

EPSON

medicoil **DECADES OF EXPERIENCE**

IN THE MEDICAL DEVICE INDUSTRY

More than three generations of industry experience and a desire to creatively develop the optimal solution for difficult applications has earned Medicoil preferred-supplier status among some of the world's leading medical device companies. Decades of industry expertise, coupled with significant investment in leading state-of-the-art technology, new modern facilities and significant capacity, makes Medicoil your partner for the future.

R&L Tool founded in Ridgefield, Illinois by Royden Forsythe and Leonard Namyst		Moved to Woodstock, IL as demand for production space increased (15,000ft ²)		Medical components department established with 2 people. Worked with major medical device manufacturer on electrode coils for pacemaker leads		Acquired first manual laser welder for balling the end of coils			Issued ISO 9001 certification		Acquired the first CNC Swiss Screw Machine	
1972	1976	1984	1987	1993	1994	1997	1998	1999	2000	2001	2003	
Moved to Algonquin, IL after a factory fire at the Ridgefield facility		Scott Forsythe becomes president/ owner, name changed to R&L Spring		Started production of pacemaker components in a small (1,000ft ²) room with 4 people running operations. Production was focused on platinum defibrillator coils and pacing electrode coils		First generation custom CNC controlled mandrel winder built. R&L Spring moved to a new 80,000ft ² building in Lake Geneva, WI and the medical components division expanded operations footprint (3,600ft ²)		Medicoil brand established with 12 employees to focus on opportunities in the medical device market, exhibit at first MD&M show		Second generation custom CNC winder built to aid in the manufacturing of long multi-filar pacemaker lead coils		



Developed manufacturing processes for winding insulated wire coils (multiple-conductor)

Began winding pacing lead coils and entered the medical component Added class 7 cleanroom and industry compatible

First generation semi-

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Built and installed the first process automation cell, supporting

Automated production processes developed to integrate coil winding, laser welding/balling and heat shrink lamination for component sub-assemblies. Second facility with an additional production space (8,000ft²) added to support

MULTISWISS

for multi-site pacing applications		sub-assembly market		cleaning systems ▼	auto	matic long coil winder designed and built ▼				ations growth and risk mitigation	
2004	2005	2006	2007	2008	2011	2014	2015	2016	2017	2018	2019
Developed abrasive ablation process for selective coating removal on coated wire conductor coils, also acquired first generation automated laser welder		Moved into a purpose built 55,000ft ² building in Lake Geneva, WI with 30 employees supporting operations		Attained ISO 13485 certification. 60 people supporting operations		First custom build laser ablation system built		Acquired high speed winding machines for high volume, low cost, single use components serving the global medical market. Medicoil reaches significant growth milestone, with over 100 people supporting operations		Built and installed a second process automation cell for electrical contacts incorporating component assembly, laser welding, testing and inspection	

OUR FACILITY, YOUR HOME FOR CONFIDENCE

Medicoil's clean, modern purpose-built production facility includes clean rooms and a clean, HEPA-filtered manufacturing area. Environmental monitoring of temperature, humidity, cleanliness of work areas, combined with strict in-process controls systems provide the proper environment for our highly trained work force to produce consistent precision products for our Customers.

CUSTOMER FIRST, QUALITY ALWAYS

Medicoil is ISO 13485 certified and complies with all government regulations and standards. We strive to exceed customer expectations with all employees actively contributing to our process for continuous improvement and a lean mindset. From raw materials to prototype to manufacturing excellence to in-process and final inspection, quality is assured.



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YOUR PARTNER FOR THE FUTURE

"Our success throughout our history has come from doing difficult products other component manufacturers said couldn't be done, helping our Customers create new products and opportunities. This is rooted in the founding of R&L Spring and carries on through Medicoil today. Through investment in the ever-increasing talents of our employees we will continue to do as we always have, taking on the risk of adding new processes and developing more efficient core capabilities for the manufacture of components for both implantable and single use medical devices. We will accomplish this with creativity and continued investment in our operation and through research and development of unique processes and opportunities beyond our current capabilities. All this to help our Customers achieve their goals of creating better products that help improve the quality of life."

Scott Forsythe, Owner and President

medicoil

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